X.. √ 9/5/86 o ✓

Yale University

Department of Human Genetics
Yale University School of Medicine
I-310 SHM
P.O. Box 3333
New Haven, Connecticut 06510-8005

Campus address:
I-310 Sterling Hall of Medicine
333 Cedar Street

August 8, 1986

Dr. Joshua Lederberg, President
Rockefeller University
1230 York Avenue
New York, NY 10021

Dear Josh:

Regarding the size of the E. coli genome --

In the 1983 revision of the map I calculated map distances on the basis of 45 kb/minute. The figures that I knew of at that time varied from 4.3 - 4.7 x 10^6 bp for the entire genome.

I spoke this morning to Cassandra Smith*(Department of Human Genetics, Columbia), who has just completed a restriction map of the entire genome. She obtained a figure of 4.7 x 10^6 bp for the entire K-12 gneome, including the F factor. As F is ~90 kb, that makes the chromosome ~4.6 x 10^6 bp (46 kb/minute). This, fortunately, means that the map was not far off.

I have heard that two other persons are doing restriction maps of the entire genome. One is Richard Burgess and the other is said to be someone in the MRC Molecular Biology Unit at Cambridge University. I have not heard what figures these labs have come up with yet.

I don't know anything about B. subtilis.

Many thanks for the information on Bronfenbrenner's papers sent to me. I haven't had time to pursue the origin of E. coli B as we are still trying to get moved to the Biology department (OML). What I shall need eventually is access to his lab notebooks for around 1924-1925, as nearly as I can tell now. I'll go over what information I have later on and come up with a more precise idea of what is needed.

Thanks again and best regards.

*(212)-305-2500

Sincerely,

Barbara

Barbara J. Bachmann, Ph.D.
Curator, E. coli Genetic Stock Center

BJB:amf

✓ 9 X in Ca. (FYI)